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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/586,641	06/05/2000	HIROKATSU SHIMADA	15162/02070	7764

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EXAMINER

PHAM, THIERRY L

ART UNIT	PAPER NUMBER
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2625

DATE MAILED: 08/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/586,641	SHIMADA, HIROKATSU	
	Examiner	Art Unit	
	Thierry L. Pham	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 May 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

- This action is responsive to the following communication: an Amendment filed on 5/18/06.
- Claims 1-27 are pending.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 5-8, 10-13, 15-18, 20-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yacoub et al (U.S. 6552813), Lee et al (U.S. 6825952), and further in view of Mestha et al (US 6744531).

Regarding claim 1, Yacoub discloses a printer control device (server, Fig. 3 & 4) which controls multiple printers (Fig. 4) connected to a network circuit, said printer control device comprising:

- a detector (a detecting means is incorporated within a server, col. 4, lines 28-52) for detecting a problem in any of the printers;
- a selection controller (server, Fig. 3, col. 4, lines 5-67 and col. 5, lines 1-12) for selecting, when a problem is detected by the detector, another normally functioning printer to substitute (substitute printer, abstract and col. 4, lines 28-67) for the printer in which the problem is detected by said detector; and
- a substitute controller for selecting the substitute printer for the failed selected printer to ensure same image quality (finding substitute printer for failed printer, col. 4, lines 5-67 and col. 5, lines 1-12).

Yacoub fails to explicitly teach and/or suggest a substitution controller for correcting print data, that was to have been printed out by the printer in which the problem is detected by said detector, based on a color information of the printer in which

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the problem is detected by the detector and a color information of the selected substitute printer, and for outputting the corrected print data to the selected substitute printer.

Lee, in the same field of printing system, teaches a substitution controller (server 102, fig. 1) for correcting print data (adjusting grayscale, fig. 3, col. 2, lines 1-26 and col. 7, lines 5-45), that was to have been printed out by the printer in which the problem is detected by said detector, based on a color information of the printer in which the problem is detected by the detector and a color information of the selected substitute printer (based upon characteristics of first printer and second printer, fig. 3-4, col. 7, lines 5-45), and for outputting the corrected print data to the selected substitute printer.

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Yacoub as per teachings of Lee to include a substitute controller for correcting print data based upon an output device's characteristics because of a following reason: (●) to maintain the same and high output quality between two printers (col. 4, lines 22-62); (●) to ensure the print data outputted by the substitute printer is having the same quality as the failed printer, therefore, reducing wasted image forming consumable (i.e. print media, inks, and etc) and time.

However, combinations of Lee and Yacoub do not explicitly state the print data and corrected print data is expressed in a device dependent color system, and fail to explicitly specify the color information of the printer in which the problem is detected and the selected substitute printer each includes color conversion information for the respective printer between the device dependent color system and a device independent color space.

Mestha, in the same field of endeavor for printing, teaches a well-known example of color space conversion wherein the print data and corrected print data is expressed in a device dependent (image data can be supplied in either format, dependent or independent, abstract, fig. 2, col. 2, lines 15-42) color system, and explicitly specify the color information of each printer each includes color conversion information for the respective printer between the device dependent color system and a device independent color space (figs. 3-6, col. 2, lines 15-55, also, color conversion between from dependent to independent or vice-versa is well known and widely available in the art).

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It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Yacoub & Lee to express print data in either format (i.e. dependent or independent) and a method of converting between each format (i.e. from dependent to independent or vice-versa) as taught by Mestha because it provides consistent output image quality across a plurality of different hard copy devices (printers) by adjusting input color values (col. 2, lines 8-15 of Mestha).

Therefore, it would have been obvious to combine Yacoub, Lee, and Mestha to obtain the invention as specified in claim 1.

Regarding claim 2, Lee further discloses a printer control device as claimed in claim 1, wherein the print data include color print data that indicate a color image (fig. 3), and said substitution controller performs correction data (modifying printer grayscale commands, fig. 3), so that a color characteristic of the color image printed by the printer in which the problem is detected are the same as that of the color image printed by the selected substitute printer.

Regarding claim 3, Lee further discloses a printer control device as claimed in claim 1, wherein the print data include middletone print data that indicate a middletone image, and the substitution controller performs correction so that a gradation characteristic (grayscale, fig. 3) of the middletone image printed by the printer in which the problem is detected are the same as the gradation characteristic of the middletone image printed by the selected substitute printer.

Regarding claim 5, Yacoub further discloses a printer control device as claimed in claim 1, wherein said multiple printers include a copying machine (fig. 2), and multifunction printer includes a copying function is known in the art and widely available.

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Regarding claim 21, Lee further teaches a printer control device as claimed in claim 1, wherein image quality includes at least one of a color characteristic and gradation characteristic (grayscale, fig. 3-4).

Regarding claims 6-8, 10, and 22: Claims 6-8, 10, and 22 are the methods corresponding the apparatus and recite limitations that are similar and in the same scope of invention as to those in claims 1-3, 5, and 21 (respectively) above; therefore, claims 6-8, 10, and 22 are rejected for the same rejection rationale/basis as described in claims 1-3, 5, and 21 (respectively) above.

Regarding claims 11-13, 15, and 23: Claims 11-13, 15, and 23 recite limitations that are similar and in the same scope of invention as to those in claims 1-3, 5, and 21 (respectively) except computer readable memory for storing computer programs. All computers/printers have some type of computer readable medium (i.e. ROM) for storing computer programs, hence claims 11-13, 15 would be rejected using the same rationale as in claims 1-3, 5, and 21 (respectively).

Regarding claims 16-18, 20, and 24: Claims 16-18, 20, and 24 recite limitations (i.e. system) that are similar and in the same scope of invention as to those in claims 1-3, 5, and 21 (respectively); therefore, claims 16-18, 20, and 24 are rejected for the same rejection rationale/basis as described in claims 1-3, 5, and 21 (respectively) above. A system includes a host computer and a printer is shown in fig. 1 of Ito.

Regarding claims 25-27: Claims 25-27 are the methods corresponding the apparatus and recite limitations that are similar and in the same scope of invention as to those in claims 1 & 21 (respectively) above; therefore, claims 25-27 are rejected for the same rejection rationale/basis as described in claims 1 & 21 (respectively) above.

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Claims 4, 9, 14 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yacoub, Lee, and Mestha as applied to claim 1 above, and in view of Hirofumi et al (JP 410301737A).

Regarding claim 4, the combinations of Yacoub, Lee, and Mestha do not disclose explicitly wherein said substitution controller outputs to the selected substitute printer the print data for remaining pages not printed by the printer in which the problem is detected.

Hirofumi, in the same field of endeavor for detecting failure printers in the network, discloses substitution controller outputs to the selected substitute printer the print data for remaining pages (abstract and computer-translation, p.3, paragraph 14) not printed by the printer in which the problem is detected.

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Yacoub, Lee, and Mestha as per teachings of Hirofumi (print remaining pages) because of a following reason: to increase printing capability and to eliminate the waiting time when errors occurred within the networked printers (Yacoub, col. 3, lines 23-47 and col. 10, lines 50-65).

Therefore, it would have been obvious to combine Hirofumi with Yacoub, Lee, and Mestha to obtain the invention as specified in claim 4.

Regarding claim 9: Claim 9 is the methods corresponding the apparatus and recite limitations that are similar and in the same scope of invention as to those in claim 4; therefore, claim 9 rejected for the same rejection rationale/basis as described in claim 4 above.

Regarding claim 14: Claim 14 recites limitations that are similar and in the same scope of invention as to those in claim 4 except computer readable memory for storing computer programs. All computers/printers have some type of computer readable medium (i.e. ROM, Ito, fig. 1) for storing computer programs, hence claim 14 would be rejected using the same rationale as in claim 4.

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Regarding claim 19: Claim 19 recites limitations (i.e. system) that are similar and in the same scope of invention as to those in claim 4 therefore, claim 19 is rejected for the same rejection rationale/basis as described in claim 4 above.

Response to Arguments

Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection due to newly added features/limitations.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- US 6108008 to Ohta, teaches a well known example of converting print data expressed in dependent format or independent format to independent format or dependent format (respectively).
- US 6441918 to Hori, teaches a well known example of converting (color transformation) print data expressed in dependent format or independent format to independent format or dependent format (respectively).

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the

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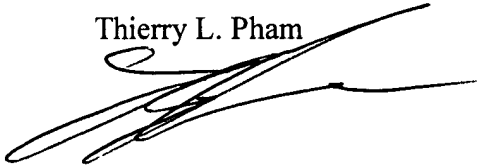
advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thierry L. Pham whose telephone number is (571) 272-7439. The examiner can normally be reached on M-F (9:30 AM - 6:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K. Moore can be reached on (571)272-7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Thierry L. Pham



GABRIEL GARCIA
PRIMARY EXAMINER